

COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

Sub D1

1. (Previously Amended) A moving picture decoding apparatus to which a compressed stream generated using inter-frame prediction is input, said apparatus comprising:

a compressor that compresses a decoded image and stores the resulting compressed image in a memory;

an expander that expands a compressed image stored in said memory;

a quantization controller that controls how quantization is performed in said compressor; and

a memory access width controller that controls said quantization controller such that bit allocation is controlled in relation to the number of bits of a memory access unit of said memory.

2. (Presently Amended) The moving picture decoding apparatus according to claim 1, wherein said memory access width controller controls said quantization controller such that a number of coded bits of the image processed in said ~~compression means~~ compressor for every control unit of compression processing is in conformity with the number of bits of the memory access unit of said memory in the case that the coded number of bits exceeds the number of bits of the memory access unit of said memory.

3. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein the compressor and the expander conduct compression and expansion, respectively, in accordance with a pixel difference prediction encoding system.

4. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein said quantization controller controls quantization by preparing a plurality of quantizers and a plurality of quantization characteristic tables.

5. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein said quantization controller controls quantization by preparing a plurality of quantizers and a quantization characteristic table being shared by said plurality of quantizers.

6. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein the compressor and the expander conduct compression and expansion, respectively, in accordance with an orthogonal translation encoding system.

7. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein said memory access width controller conducts control using information included in the compressed stream.

8. (Previously Amended) The moving picture decoding apparatus according to claim 1, wherein the memory is a frame memory.

9. (Presently Amended) A moving picture decoding apparatus to which a compressed stream generated using inter-frame prediction is input, said apparatus comprising:

a compressor that compresses a decoded image;

a memory that stores the compressed image output from said ~~compression~~
~~means~~ compressor;

an expander that expands the compressed image stored in said memory;

a quantization controller that controls how quantization is performed in said
compressor; and

a memory access width controller that applies bit allocation control to said quantization controller based on the number of bits of a memory access unit of said memory,

wherein said quantization controller controls quantization performed by the compressor based on access width information from said memory access width controller such that a number of bits of the image processed in said compressor for every control unit of compression processing is equal to or less than the number of bits of the memory access unit of said memory in the case that the number of bits for every control unit of compression processing exceeds the number of bits of memory access unit of said memory.

Q1 10. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein said memory access width controller applies bit allocation control to said quantization controller in conformity with the number of bits of the memory access unit of said memory, based on an occupied content of said memory.

11. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein the memory access width controller conducts control using information included in the compressed stream.

12. (Presently Amended) The moving picture decoding apparatus according to claim 9, wherein the memory access width controller applies control to the quantization controller such that when an allocated number of bits of coded data of a compression processing block exceeds the number of bits of the memory access unit of said memory or is less than the number of bits of the memory access unit of said memory, the allocated number of bits is made equal to or less than the number of bits of the memory access unit of said memory by subtracting a predetermined number of bits from the allocated bits of

coded data of said compression processing block or by increasing the number of allocated bits by the predetermined number of bits, whereby the coded data is enabled to be extracted from said ~~storage means~~ memory with one access occurrence.

13. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein the compressor controls quantization characteristics used for quantizing said decoded image, based on control by said quantization controller.

14. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein said quantization controller controls quantization by preparing a plurality of quantizers having quantization characteristics different from each other, and wherein a quantization characteristic table is shared by said plurality of quantizers.

15. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein said compressor comprises a subtracter, a quantizer, an encoder, an inverse quantizer, an adder and a predictor, a prediction error obtained in said subtracter by a subtraction operation between said decoded image and a predicted value from said predictor is supplied to said quantizer, under control of said quantization controller, said quantizer quantizes said prediction error and supplies the quantized result to said encoder and said inverse quantizer, said encoder encodes an output from said quantizer and outputs the encoded result to said ~~storage means~~ memory, and inverse quantization and local decoding are conducted in said inverse quantization, said adder, and said predictor.

16. (Previously Amended) The moving picture decoding apparatus according to claim 9, wherein the memory is a frame memory.

17. (Previously Amended) A moving picture decoding method comprising the steps of:

c' detecting a number of coded bits for every control unit of compression processing and controlling said number of coded bits so that said number of coded bits is in conformity with the number of bits of a memory access unit of a memory when said detected number of coded bits exceeds the number of bits of a memory access unit of said memory.

18. (Presently Amended) The moving picture decoding method according to claim 17, wherein said step of controlling comprises using information from an external compressed data stream.
